

# Anti-Raptor Antibody

## ER1802-57



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 149 kDa

**Description:** Regulatory associated protein of FRAP, also designated Raptor, is a binding partner for mammalian target of rapamycin kinase (FRAP), and is essential for FRAP signalling in vivo. Raptor binding to FRAP is critical for FRAP-catalysed substrate phosphorylation of 4E-BP1. The raptor-FRAP complex is nutrient-sensitive and is important for a mechanism by which cells coordinate cell growth and size with changing environmental conditions. Raptor serves as a negative regulator of FRAP kinase activity under nutrient-deprived conditions and is an important component in the FRAP pathway. Raptor is highly expressed in skeletal muscle and to a lesser extent in brain, kidney, lung and placenta.

**Immunogen:** Synthetic peptide within human Raptor aa 90-170.

**Positive control:** MCF-7 cell lysates, 293T, LOVO, rat brain tissue, human breast tissue, mouse colon tissue, A549.

**Subcellular location:** Cytoplasm, Lysosome, Cytoplasmic granule.

**Database links:** SwissProt: Q8N122 Human | Q8K4Q0 Mouse  
Entrez Gene: 287871 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

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Orders:0086-571-88062880

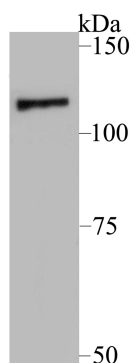
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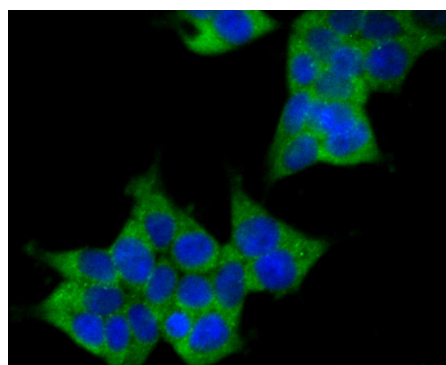
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

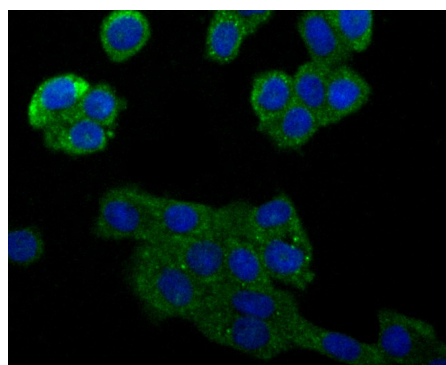
## Images



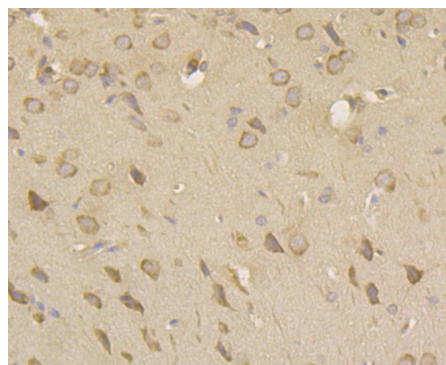
**Fig1:** Western blot analysis of Raptor on MCF-7 cell lysate using anti-Raptor antibody at 1/500 dilution.



**Fig2:** ICC staining Raptor in 293T cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining Raptor in LOVO cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Raptor antibody. Counter stained with hematoxylin.

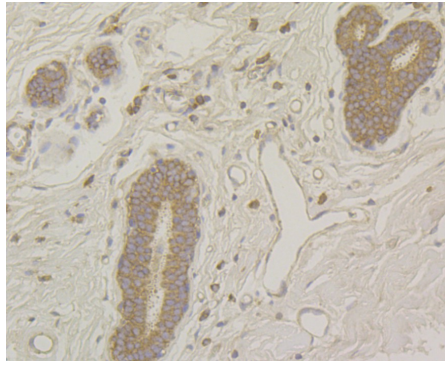
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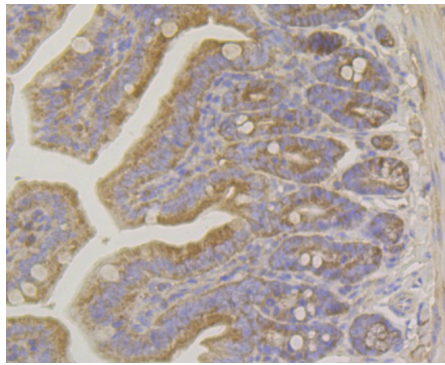
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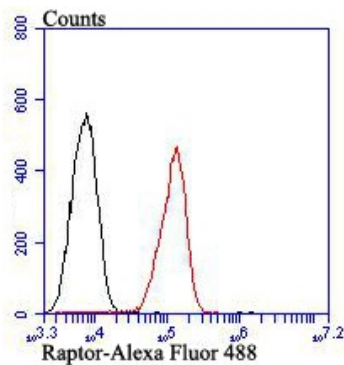
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**Fig5:** Immunohistochemical analysis of paraffin-embedded human breast tissue using anti-Raptor antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-Raptor antibody. Counter stained with hematoxylin.



**Fig7:** Flow cytometric analysis of A549 cells with Raptor antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Wei X et al. MicroRNA-377-3p released by mesenchymal stem cell exosomes ameliorates lipopolysaccharide-induced acute lung injury by targeting RPTOR to induce autophagy. *Cell Death Dis.* 2020 Aug
2. Han H et al. N7-methylguanosine tRNA modification promotes esophageal squamous cell carcinoma tumorigenesis via the RPTOR/ULK1/autophagy axis. *Nat Commun.* 2022 Mar

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